Objective of Java Training: Comprehensive Understanding of Programming Using Java Springboot and Able to build a high performing APIs with right Software Programming Practices including - Quality, Security, Performance

Duration: 3 Weeks

- First Half – Virtual Instructor led training
- Second Half – Self Study and time for Q&A)

No of TMs: 35-40 TMs

Training Days	Topics for Day1	Objectives
Day 1	- A sample app - Structure of the program - Object Oriented Programming - Objects and Class hands-on	Learning Objectives of Day 1 - Components of Enterprise Application Using Object Oriented Approach
Day 2	- Principles of OO - Abstraction - Polymorphism - Inheritance - Encapsulation - Exceptions and Handling	Learning Objectives of Day 2 - OOPS Concepts
Day 3	Java Generics & Collections Incremental Features in Java 11,14,16 with examples	
Day 4	- Interface Driven Design - SOLID Design Principles	Learning Objectives of Day 3 Design Concepts - Ability to design applications with right concepts
Day 5	- SOLID Design Continued (With Examples)	Learning Objectives of Day 4 Thorough Understanding of SOLID
Day 6	- Threads and Multithreading	Learning Objectives of Day 5 Concepts and Implementation of Parallel Processing
Day 7	- Metrics and Logs	Learning Objectives of Day 6 Importance of Observability

Day 8	- Databases and Data access patterns - Connect to In Memory DB	Learning Objectives of Day 7 Basics of Data Modelling and Access Programmatically
Day 9	- DAO Concepts with Postgres - Caching	Learning Objectives of Day 8 Different ways to integrate with Data Store and Implementation with Postgres
Day 10	- Introduction to Testing - Test Pyramid - Unit Testing using JUnit	Learning Objectives of Day 9 Importance of Software Quality and Understanding of Unit Test Practices
Day 11	Mocking Frameworks Test Metrics using SonarQube	Continue On Unit Test Quality, Key Metrics
Day 12	- Introduction to REST - Create/Convert Web Service to REST Service - Implement CRUD Operations	Concepts of API and Importance of REST
	- REST Concepts (Contd) - Implement CRUD Operations	Able to create REST APIs using Java
Day 13	- Introduction to Microservices - Alignement to SOLID principles - Introduction to Springboot	Introduction to Cloud and Microservice design pattern
Day 14	- Springboot continued - Overview of important Annotations - Design a solution using microservices	Able to write API usin Springboot , and able to perform all CRUD operations
Day 15	- Microservices development continues - Asynchronous Programming	Sprinboot implementation contd (security practices)
Day 16	Java Challenge for TMs – To measure application of learning	